



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

647.7713

Job Sheet 171205



Part No: 647.7713

Job Qty: 10 ea

Part Name: Strut Thread



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 1/30/18

Job Tracking No:

Created By: Michelle Gagnon-Donovan

Due Date: 2/5/18

Type: Stock

Description:

Note: DWG REV A2 IPP REV:A NEW ISSUE 12-11-06 JLM VERIFIED BY:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	10 Ea		2/3/18	0.00	0.00	Start Up Machining-1		JB 18.04.23
100	Hardinge	10 pcs		2/5/18	0.01	3.10	Hardinge		JB 18.04.23
110	QC	10 pcs		2/5/18	0.00	0.00	QC2 Machining-1		JB 18.04.23
120	QC	10 pcs		2/5/18	0.00	0.00	QC8 Machining-1		JB 18.04.23
130	Packaging	10 pcs		2/5/18	0.00	0.00	Packaging3-1		JB 18.04.23
140	QC21-SA	10 Ea		2/5/18	0.00	0.00	QC21		APR 25 2018

Part Op 100 - Machine as per folio FB149

Descriptions: 130 - ***COAT PARTS IN OIL BEFORE PUTTING THEM IN A BAG TO PREVENT FROM RUSTING***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M4130NR0.375	4130 Steel Round Bar .375"	2 ft (.2 ea)	90-Start up Operation	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	M4130NR0.375	2	28	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Strut Thread	1.250inches ± 0.030	1.280 1.220		
2	Strut Thread	0.500inches ± 0.030	0.530 0.470		
3	Strut Thread	0.650inches ± 0.030	0.680 0.620		
4	Strut Thread	0.324inches ± 0.010	0.334 0.314	Diameter	

Plex 1/31/18 9:56 AM Dart.Gagnon.Michelle

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only- ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐				
Date :	Step #:	QTY Effective :			MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By	
					Lead hand / Supervisor Approval Verification	
					QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : _____						



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

ENGINEERING CHANGE NOTICE NO. 05397

SHEET 1 OF 1

DWG NO. 647.7700

REV: A PREPARED BY T. CROSS

DATE: 05/02/16

EFFECT ON DWG -
☐ INC. ☒ UNINC.

DWG TITLE: STRUT ASSY

APPROVED BY: ENGR

MFG

QC

EFF:

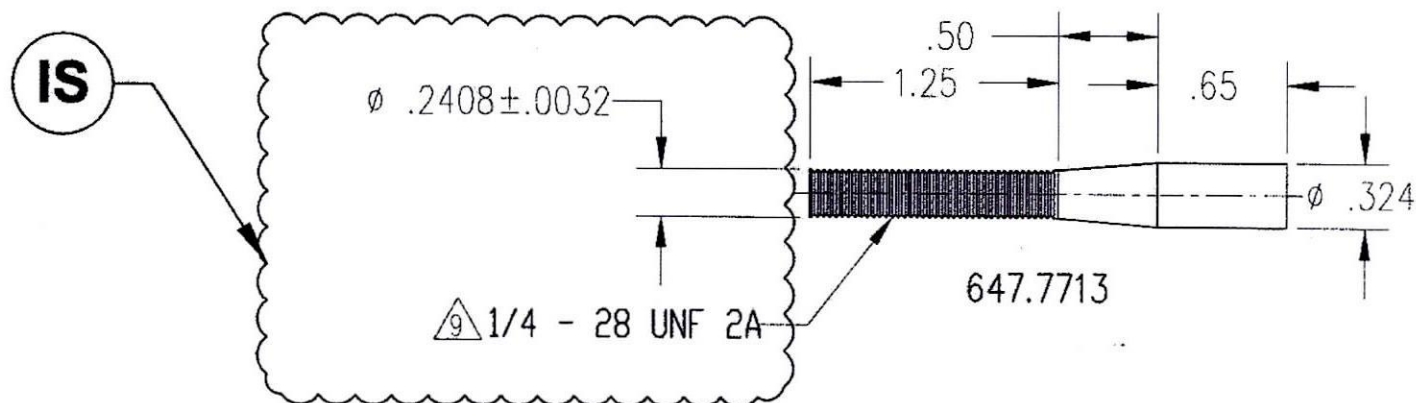
CURRENT ORDER

REASON: REVISED DIMENSION

ECR:
16-028

ACTION LIST:
1.

SHEET 2, ZONE D4 IS:



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 171205

JAN 31 2018

DOCUMENTS EFFECTED:

☐ PATTERN ☐ MDL ☐ INSTALL INSTRU ☐ ICA ☐ BOM

CHANGE CATEGORY
☐ MAJOR ☒ MINOR

DER REVIEW REQUIRED
☐ YES ☒ NO



APICAL INDUSTRIES, INC.
dba DART AEROSPACE

ENGINEERING CHANGE NOTICE NO.

05110

SHEET 1 OF 1

DWG NO. 647.7700

REV: A

PREPARED
BY

A. QUAN

DATE: 08/21/15

EFFECT ON DWG

☐ INC. ☒ UNINC.

DWG TITLE: STRUT ASSY

APPROVED BY:

ENGR

MFG

QC

EFF.

CURRENT ORDER

TRANSACTION CODES (TC):
A-ADD C-CREATE
R-REVISE D-DELETE

REASON: REVISED FINISH CALLOUT AS PER ECR 15-209

SHEET 1, NOTES IS:

ACTION: UPDATE MO & WO

NOTES:

- 1 MATERIAL: 4130 STEEL PER AMS-T-6736, .50" OD, .083" WALL THK.
- 2 MATERIAL: 4130 STEEL PER AMS-T-6736, .375" OD, .075" WALL THK.
- 3 MATERIAL: 4130 STEEL PER AMS-T-6736, .324" OD.
- 4 FINISH: PRIME IAW MIL-P-2337J TYPE I CLASS N; 1-2 MIL MAX
5. DEBURR AND BREAK ALL SHARP EDGES
6. IDENTIFY IAW MPP-120.
- 7 WELD IAW MIL-STD-2219. TIG WELD WITH FILLER ROD
- 8 FINISH: CAD PLATE IAW QQ-P-416F CLASS I TYPE II
- 9 MASK THREAD PRIOR TO FINISH

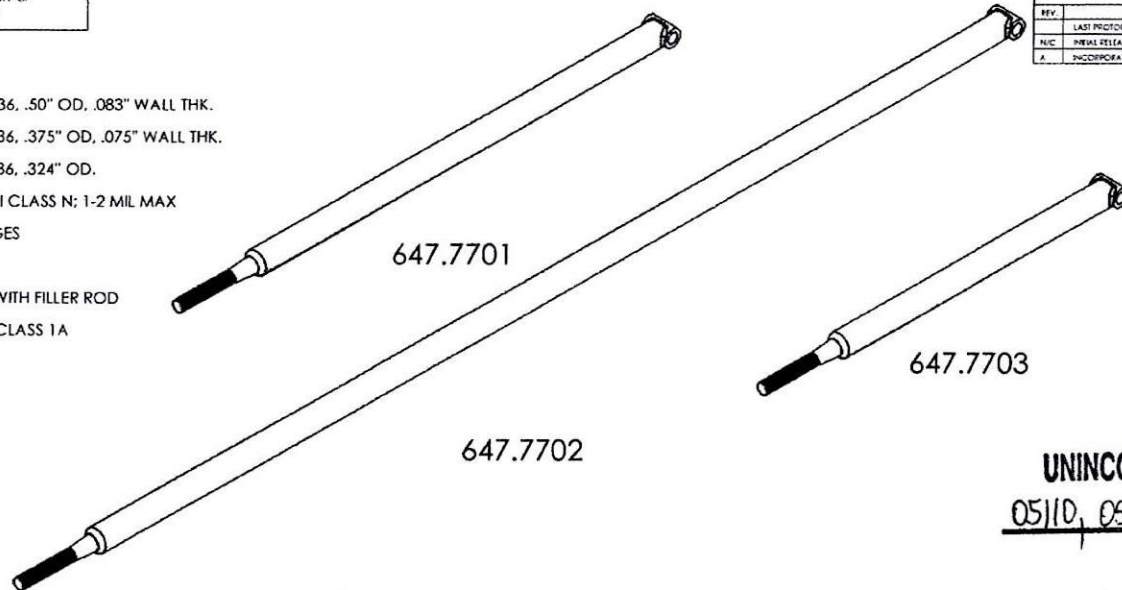
F/N	TC	PART NUMBER	QTY	DESCRIPTION	MATERIAL/SPECIFICATION	
DOCUMENTS EFFECTED:					CHANGE CATEGORY	DER REVIEW REQUIRED
☐ MDL ☐ INSTALL INSTRUCTIONS ☐ ICA ☐ FMS ☐ BOM					☐ MAJOR ☐ MINOR	☐ YES ☐ NO

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.

NOTES:

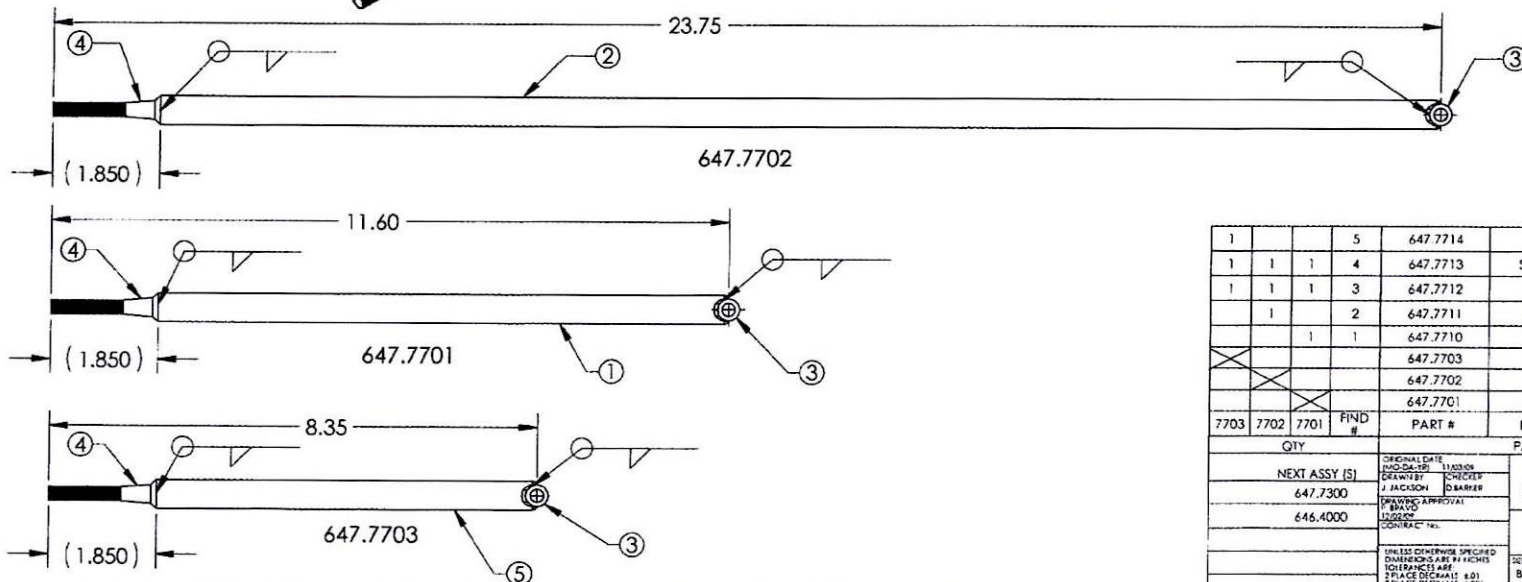
- 1. MATERIAL: 4130 STEEL PER AMS-T-6736, .50" OD, .083" WALL THK.
- 2. MATERIAL: 4130 STEEL PER AMS-T-6736, .375" OD, .075" WALL THK.
- 3. MATERIAL: 4130 STEEL PER AMS-T-6736, .324" OD.
- 4. FINISH: PRIME IAW MIL-P-2337J TYPE I CLASS N; 1-2 MIL MAX
- 5. DEBURR AND BREAK ALL SHARP EDGES
- 6. IDENTIFY IAW MPP-120.
- 7. WELD IAW MIL-STD-2219, TIG WELD WITH FILLER ROD
- 8. FINISH: CAD PLATE IAW MIL-C-5541 CLASS 1A
- 9. MASK THREAD PRIOR TO FINISH

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
LAST PROTOTYPE REVISION NO.			N/C
N/C	INITIAL RELEASE	12/02/09	P. BRAVO
A	INCORPORATED ECN 04041	11/13/14	P. BRAVO



UNINCORPORATED ECN(s)

05110, 05397,



1			5	647.7714	STRUT TUBE	△	
1	1	1	4	647.7713	STRUT THREAD	△	△
1	1	1	3	647.7712	STRUT TUBE	△	
	1		2	647.7711	STRUT TUBE	△	
		1	1	647.7710	STRUT TUBE	△	
				647.7703	STRUT ASSY		△△
				647.7702	STRUT ASSY		△△
				647.7701	STRUT ASSY		△△
7703	7702	7701	FIND #	PART #	DESCRIPTION	MATL	SPEC.
QTY				PARTS LIST			
NEXT ASSY (S)				ORIGINAL DATE 11/03/09			
647.7300				DRAWN BY J. JACKSON			
646,4000				CHECKED BY D. BARBER			
				DRAWING APPROVAL P. BRAVO			
				CONTRACT NO.			
				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES			
				TOLERANCES ARE:			
				3 PLACE DECIMALS ±.001			
				ANGLES ±.5°			
				SEE PAGE CODE			
				B Q/MZ6			
				SCALE NONE			
				SHEET 1 OF 2			

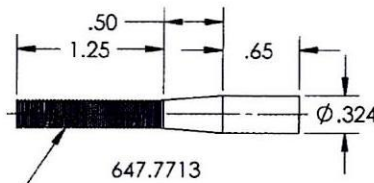
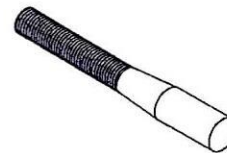
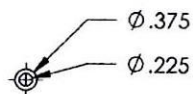
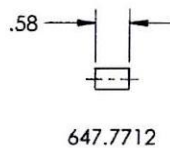
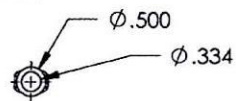
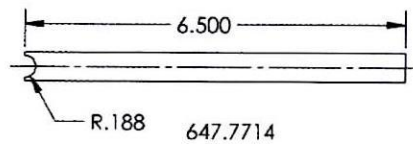
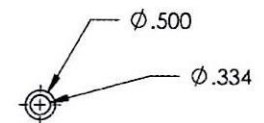
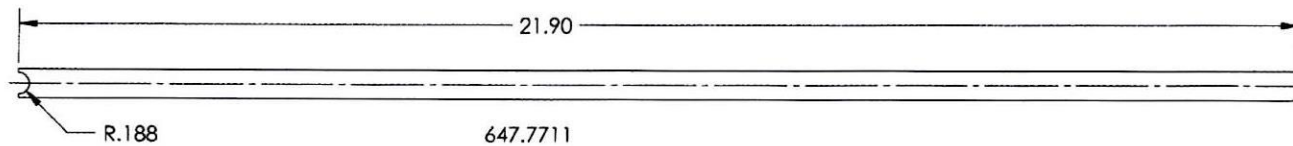
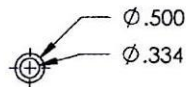
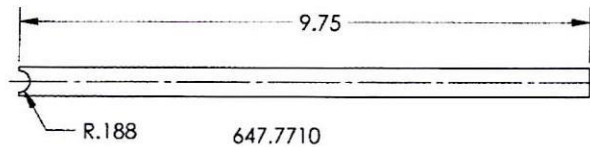
APICAL INDUSTRIES
2608 TEMPLE HEIGHTS DR.
OCEANSIDE, CA. 92056-3512 (760)724-5300

STRUT ASSY

647.7700

SCALE NONE SHEET 1 OF 2

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF APICAL INDUSTRIES. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF APICAL INDUSTRIES IS PROHIBITED.



1/4 - 28 THREAD

ORIGINAL DATE: 11/03/00
 DRAWN BY: J. JACKSON
 CHECKED BY: J. BARKER
 DRAWING APPROVAL: P. BRAND
 CONTRACT NO: 647.7700

APICAL INDUSTRIES
 2608 TEMPLE HEIGHTS DR.
 OCEANSIDE, CA. 92056-3512 (760)724-5300
 STRUT ASSY
 SCALE: NONE SHEET 2 OF 2



Container No: S063803



Part: 647.7713

Job No: 171205

Serial No/Batch: S063803

Revision:

Inspector:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 04/23/18